

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
28 October 2004 (28.10.2004)

PCT

(10) International Publication Number
WO 2004/092663 A1

(51) International Patent Classification⁷: **F25B 39/02**,
41/00, B01D 1/00

(21) International Application Number:
PCT/SE2004/000584

(22) International Filing Date: 15 April 2004 (15.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0301170-7 17 April 2003 (17.04.2003) SE

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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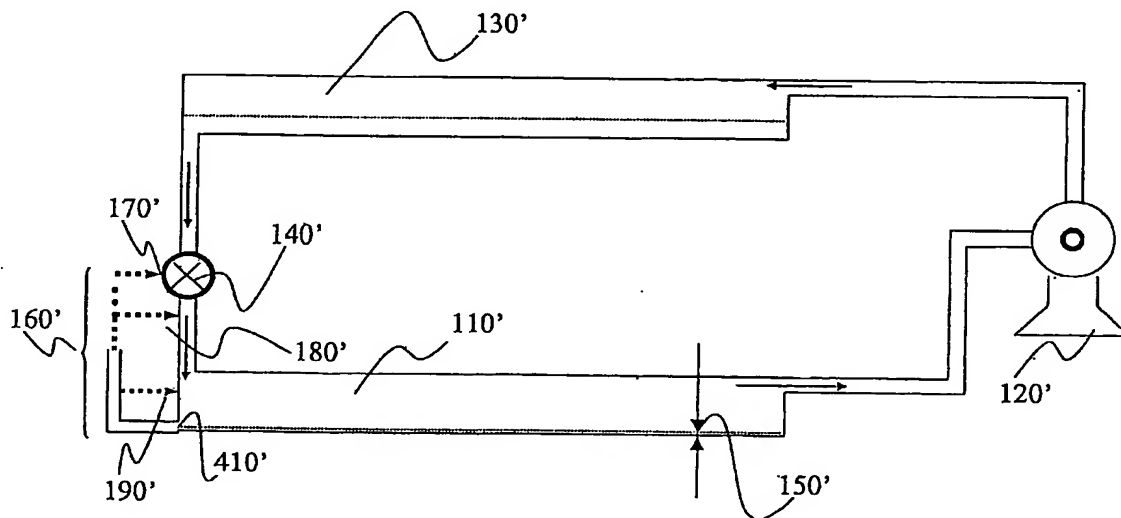
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **EVAPORATOR AND HEAT EXCHANGER WITH EXTERNAL LOOP, AS WELL AS HEAT PUMP SYSTEM AND AIR CONDITIONING SYSTEM COMPRISING SAID EVAPORATOR OR HEAT EXCHANGER**



(57) Abstract: The present invention relates generally to an evaporator and more specifically to an evaporator having an evaporating chamber (110') equipped with drainage means (160'). The drainage means (160') drain accumulated liquid from the evaporator's lower parts and include an external expansion driven injector and/or an external pump. The evaporator according to the invention can be used e.g. in a heat exchanger, e.g. in a heat pump system or air condition system, and said vacuum driven injector can be integrated with an expansion means (140') of the heat exchanger. The invention also relates to a condenser to be used together with said evaporator in a heat exchanger of the plate type realising an integrated superheater/superc cooler. This is accomplished by the definition and use of delimited interacting zones through which the cooling medium circulates under heat exchange with itself.